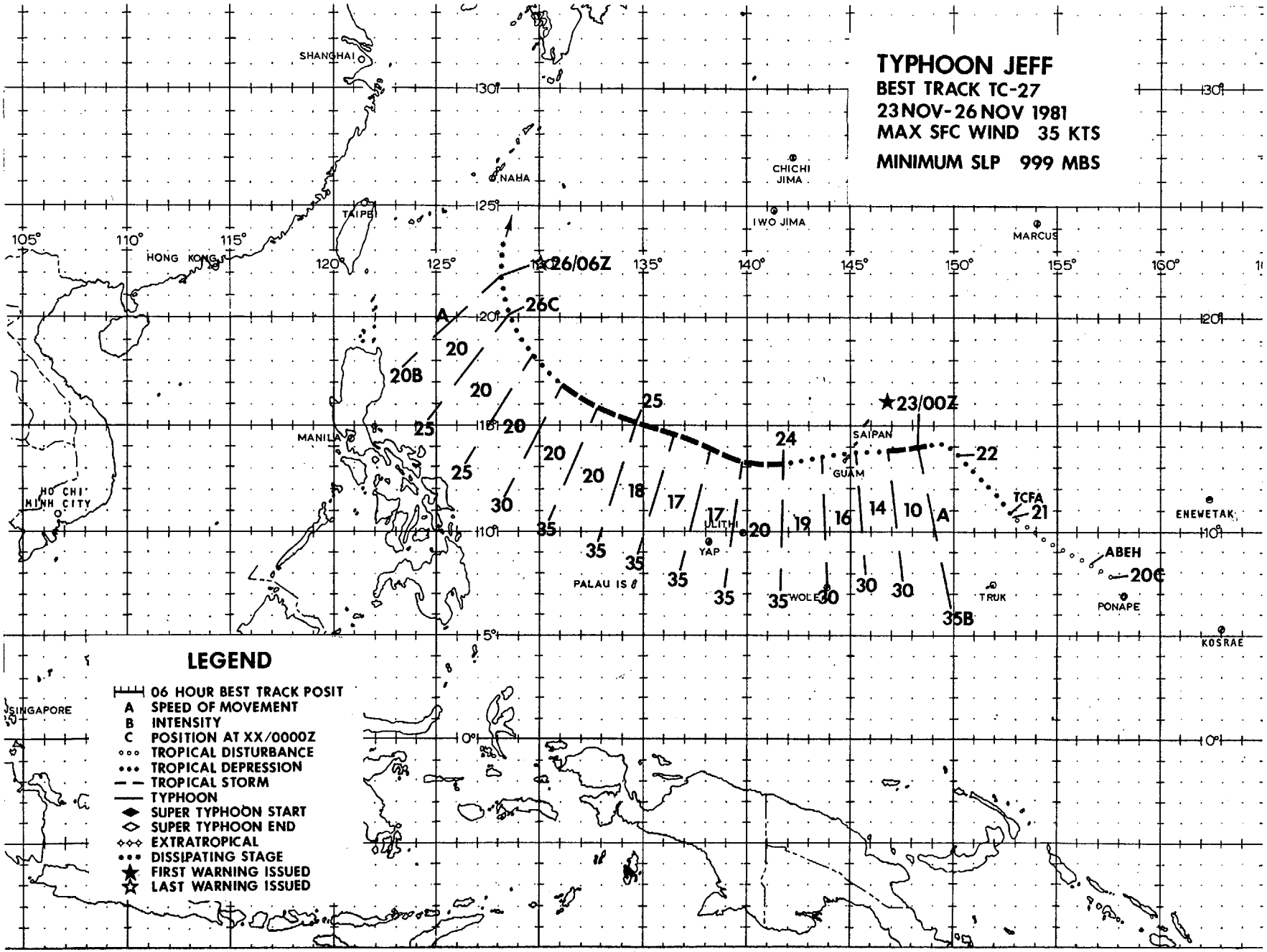
TYPHOON JEFF
BEST TRACK TC-27
23NOV-26NOV 1981
MAX SFC WIND 35 KTS
MINIMUM SLP 999 MBS
SHANGHAI
NAHA
CHICHI JIMA
IWO JIMA
MARCUS
TAIPEI
HONG KONG
MANILA
HO CHI MINH CITY
SINGAPORE
PALAU IS
YAP
ULITHI
WOLEAI
GUAM
SAIPAN
TRUK
PONAPE
KOSRAE
ENEWETAK
ABEH
TCFA
★26/06Z
★23/00Z
LEGEND
06 HOUR BEST TRACK POSIT
A SPEED OF MOVEMENT
B INTENSITY
C POSITION AT XX/0000Z
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
SUPER TYPHOON START
SUPER TYPHOON END
EXTRATROPICAL
DISSIPATING STAGE
FIRST WARNING ISSUED
LAST WARNING ISSUED

Tropical Storm Jeff was first detected as a distinct surface circulation through synoptic data analysis on 18 November. Jeff developed from the second of two major disturbances that formed in the wake of Typhoon Hazen (25). The first disturbance, Super Typhoon Irma (26), was a determining factor in Jeff's development, intensity and track.

The first warning on Jeff was issued on 23 November. This was during the period that Irma dominated the wind fields of the western Pacific (21-25 Nov). Irma's strong low-level inflow was the major steering force in the early part of Jeff's life as he followed Irma across the Pacific (Fig. 3-27-1). Strong outflow from Irma created an upper-level east-west ridge that stretched across the western Pacific. Because of the expansiveness of the ridge and the small areal extent of Jeff's convection, he was prohibited from reaching favorable outflow channels.

Jeff, due mainly to a lack of upper-level support, never intensified beyond minimal tropical storm strength (Fig. 3-27-2). Jeff's initial movement, as a weak disturbance, was northwest towards Guam, following the low-level flow into Irma. Jeff reached tropical storm strength on 23 November, just after turning west towards Guam, eventually passing 15 nm (28 km) north of the island. Jeff's westward acceleration, just prior to reaching Guam resulted from a mid-tropospheric ridge that had built eastward from Taiwan. Maintaining an intensity between 30 and 35 kt (15 to 18 m/sec), Jeff continued westward until the forecast recurvature through a break in the ridge occurred near 130E. Jeff dissipated over water on 26 November due to increasing upper-level wind shear. The final warning was issued when aircraft reconnaissance could no longer discern a surface circulation.

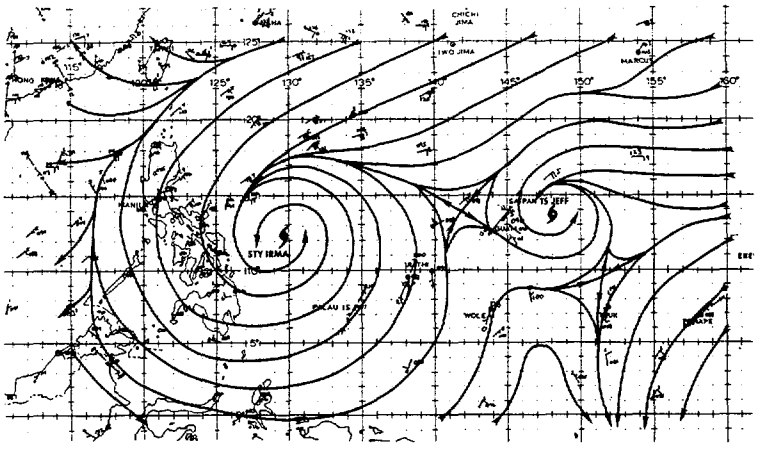

FIGURE 3-27-1. Surface (——)/gradient (←—( ) level streamline analysis for 230000Z NOV showing the low-level flow into Super Typhoon Irma. This flow pattern acted as low-level steering for Jeff.

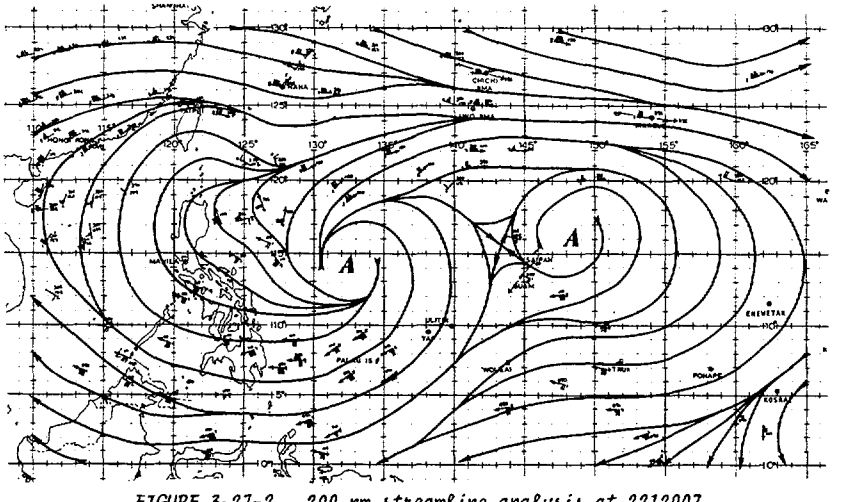

FIGURE 3-27-2. 200 nm streamline analysis at 221200Z November. Note the broad ridge across the western Pacific. Wind data are a combination rawinsonde, AIREPS, and satellite derived winds (←—).